DOCUMENT RESUME

ED 209 820 EC 140 334

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TITLE Birth Cry to Five: Milestones in the Psychosocial Development of the Gifted.
PUB DATE Apr 81
NOTE 18p.; Paper presented at the Annual International Convention of The Council for Exceptional Children (59th, New York, NY, April 12-17, 1981, Session Th-33).

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Child Development; *Developmental Stages; *Gifted; Infants; Interpersonal Competence; Language Acquisition; Preschool Education; Psychological Characteristics; Psychology; *Social Development
IDENTIFIERS *Psychosocial Development

ABSTRACT

The author reviews the literature on infant behaviors in relation to the psycholosocial development patterns of gifted children during the first five years of life. Among the milestones discussed are infant crying, smiling, language development, social cognition, and social curiosity. It is pointed out that research data indicates gifted children age 3 to 5 exhibit superior skills on measures of social cognitive abilities and in language development. In regard to the relationship between social cognition and presocial behaviors, progressive play patterns and stability of friendship choices, gifted preschoolers seem to share behavior patterns similar to their nongifted peers. Thus the trajectory of social growth among gifted preschoolers represents a combination of both divergence and convergence in relation to B. White's "average" developing children. (Author/SB)

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BIRTH CRY TO FIVE: MILESTONES IN THE PSYCHOSOCIAL DEVELOPMENT OF THE GIFTED

". . . .to begin to look at a child's educational development when he is two years of age is already much too late, particularly in the area of social skills and attitudes."
-----Burton L. White, 1975

It is exhilarating to see Dr. Burton White featured as the keynote speaker at the 1981 World Conference on Gifted and Talented Children. As director of Harvard's famous Pre-School Project, Dr. White (1975) noted that "in any group of 20 or 30 three-year-olds, there was likely to be at least one remarkably able child" (p. 4). Although Dr. White never specifically uses the term "gifted" in his book, The First Three Years of Life, in addition to remarkably able children he is highly cognizant of salient characteristics of "very well-developed three- and four-year-old children" as well as "talented children" (p. 182).

Furthermore, White (1975) notes: "In their everyday behavior these children showed the same pattern of special abilities we found in outstanding six-year-olds . . . we were quite convinced that a long-term approach to understanding good development had to start with a focus on the first three years of life" (p. 4). What are the early milestones in the psycho-social development of these children? Does the appearance of

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these milestones follow a trajectory similar to that found among children not so identified? In response to these questions, an initial review of selected infant behaviors is appropriate.

Infants are endowed with an extraordinarily powerful survival mechanism. Present at birth, the cry of human infants is so compelling that it "stimulates strong feelings and distinct reactions from almost everyone within earshot" (Ostwald and Peltzman, 1974).

Several patterns of crying have been differentiated: a hunger or basic cry, a mad cry, a pain cry, a startle cry, a distress cry (Ostwald et al., 1974; Wolff, 1973; Muller, Hollien, and Murry, 1974). One preliminary study suggests that crying activity during the neonatal period may be predictive of intellectual development at age three (Karelitz, Fisichelli, Costa, Karelitz, and Rosenfeld, 1964). In this research a flick on the sole of the foot was used to stimulate crying among 38 infants 4-10 days old. The cry count was recorded and correlated with scores obtained on the Stanford-Binet three years later. Not only was a significant relationship found between cry count and I.Q. for the entire sample, but the correlation was largely the result of scores obtained among infants with high cry counts and I.Q.s in the range of 132-162 at age three.

Although these findings are tentative, they are also tantalizing. Perhaps the data suggest that some infants pass more quickly from reflexive crying to operant crying and subsequently, to precocious communicative and cognitive skills.

This notion becomes plausible in view of the fact that distinctive crying patterns appear to exert specific effects upon maternal responsiveness. During the neonatal period Wolff (1973) found that in response to the basic cry, primiparous mothers respond far more often as soon as the baby starts to cry than do experienced mothers. Wolff (1973) adds:

> The '<u>mad</u>' cry has a more peremptory and somewhat more specific effect on the mother than the basic cry. Even experienced mothers will drop what they are doing to check on their baby, but they do not seem alarmed and express tolerant amusement at this precocious expression of rage.
>
> The parents' response to a <u>pain</u> cry is a dramatic exception to the general rule. Even nurses in the nursery who are accustomed to such sounds by years of exposure, may betray a need to do something by their actions, voice, and gesture. Mothers show the same need more dramatically when they hear the pain cry of their own infant. (p. 1189)

Obviously the infant communicates through crying. Unfortunately we have an imperfect understanding of the mental structure which prompts differentiated crying activity. However, it is commonly believed that the rudiments of attachment and socialization are intertwined with this basic form of communication. For example, during the third week infants produce a new way of crying--"long drawn out moans which occasionally rise to more explicit cries, and then revert to poorly articulated moans" (Wolff, 1973, p. 1192). This has been identified by many mothers as simply an attention getting mechanism, a fake cry. Specific nomenclature for this cry pattern is relatively unimportant. The striking issue is that crying activity is instrumental in establishing and maintaining social relationships with primary caretakers!

It is important to note that while infants' crying behaviors have effect upon mothers, maternal responsiveness also exerts an effect upon infant crying, attachment, and socialization. A longitudinal study by Bell and Ainsworth (1972) suggests that "the single most important factor associated with a decrease in frequency and duration of crying throughout the first year is the promptness with which a mother responds to cries" (p. 1183). Furthermore, the most effective type of response in the termination of infant crying appears to be picking up the infant and holding him. Feeding is also very effective and usually implies physical contact as well. The Bell et al. (1972) observations further confirm White's belief that the child's social disposition is formed very early in life. Specifically, behaviors supporting the stereotypic "spoiled child" are prominently displayed through excessive fussing and crying after the first few months of life. The researchers' data suggest that primary caretakers of these children have a tendency to either ignore infant cries or to provide lax responses.

On the other hand, consistently responsive caretakers appear to foster a sense of confidence, competency, and efficacy among their infants and at around age one these infants become far less dependent upon crying as the major form of communication directed specifically toward the primary caretaker. Rather, Bell et al (1972) observed these infants use a variety of other forms of communication--facial

expression, body gesture, and vocalizations. It has been hypothecated by the researchers that early development of increased communication and competence positively encourages the later development of means-ends activities.

In addition to crying, smiling also represents a milestone in the social development of young children. Although smiling in home-reared children is typically evidenced at around six weeks, White (1975) prefers to think of the true social smile occurring at around the third month. This distinction is predicated upon the premise that true social smiling represents an expression of positive emotion. From an ethological perspective smiling, like crying, represents a basic survival skill in the human infant. White (1975) has likened the power of the smile to a "total, unqualified engagement on the part of the baby" (p. 49) and reciprocity between maternal and infant smiling by age 3½ months is well documented in the literature (Ambrose, 1961; Ainsworth, 1964). Furthermore, smiling is considered an integral part of the normal attachment process, a process which attachment theorists propose supports and facilitates not only social development but cognitive development as well.

It appears that most babies are endowed with the basic survival mechanisms of crying and smiling. When the infant is placed in an adequate child-rearing environment, the appearance of these mechanisms seems to represent a genetic-like unraveling. Similar displays in the sensorimotor

domain suggest that during the first 7 months the developmental progress of the infant is largely assured by nature.

A paucity of longitudinal data does not allow us to make authoritative statements regarding early social development of infants who are subsequently identified as gifted. However, a model of normal infant development is useful for understanding this initial, and highly important, stage in the psychosocial development of preschool gifted children.

According to White (1975), it is at about 8 months that we see burgeoning differentiation in the developmental trajectory of "well-developing" babies versus babies developing in "average" or "poor" fashion. What are some of the social characteristics of the gifted toddler? Advanced language development is a salient characteristic. Given the isomorphic relation between language and social cognition, language is a significant marker of underlying social development. An analysis of the corpus of both receptive and expressive language indicates that "Mommy," "Daddy," phonetic variations therein, and variations in the names of other animate beings are prominent entities. A closer look at other entities ("bye-bye," "no-no"; juice, cookie) indicates that these words also relate to social development. The context in which they are learned and used is generally highly interactive.

Typically, the gifted toddler is already exhibiting a pretty keen memory for people and the functions they can

perform. Realizing that older people can be helpful, the bright youngster may readily avail himself of adult assistance. However, unbridled use of such a resourcefulness often leads to parental plaints of sheer exhaustion! The same can be said for the curiosity of the extremely young gifted child, a curiosity which includes not only the physical exploration of drawer contents, light sockets, etc., but also the social curiosity of testing caretakers' disciplinary style, mood, malleability, and threats of follow-up.

Risk-taking is another characteristic of the gifted which often expresses itself at a very early age and is closely linked to curiosity. This behavior can be evidenced in terms of interpersonal relationships and, if unchecked, can lead to Machiavellian-like brilliance in later years (Hastorf, 1977). Research suggests (Abroms and Gollin 1980) and White (1975) exhorts that a firm social structure be provided gifted youngsters. Interpersonal limits must be established. In remonstrating about children as young as 8-14 months, White (1975) states: "A child who has not been dealt with firmly during late infancy is considerably less well prepared to cope with life situations than one who has" (p. 140).

It is during the period of 8-24 months that the child's world revolves around the primary caretaker. At this age, the child does not become detached easily from the primary caretaker. Parents should find this truism helpful in establishing consistency of structure.

Two important interactive phenomena occur at about age two. First, the typically extensive vocabulary and agile use of language of the young gifted child becomes strikingly apparent. The child's precocious verbalization serves as a change agent in the interactive patterns with primary caretakers. In fact, White (1975) notes, "This particular phenomenon seems to have a very powerful effect on adults in that it often is the stimulus for adults starting to treat their babies in a much more verbal fashion than they had in previous months" (p. 150). The implications of this are manifold. How often do we hear parents remark that their gifted child 'was never really a baby'? Does early language seduce parents into setting unrealistic affective expectations for their children? How does this relate to the child's developing self concept?

A second phenomenon occurring at about age two is evidenced as a shift in the child's social world from an almost exclusive focus on primary caretakers to the beginning of serious social relations with peers. Greater reliance of our present society upon child care facilities, group settings, is undoubtedly abetting the process. In a classic study of social participation among 2-4 year old children in a nursery school setting during free play time Parten (1932) found a developmental progression in the following play styles:

> Solitary Play: The child plays alone and independently with toys, despite the proximity of other children.
>
> Parallel Play: Two or more children are engaged in independent but similar activities, such as block building.

Associative Play: A group of children recognize they are each engaged in a common activity and may converse and share materials with one another, as each child independently pursues the activity or project.

Cooperative Play: A group of children participate in a shared goal or project. The goal typically requires a division of labor, a role-taking, and organization.

In essence younger children were more frequently engaged in Solitary and Parallel Play; older children were more frequently engaged in Associative and Cooperative Play. Solitary Play was inversely correlated with the children's I.Q. range of 81 to 145. In fact, Parten hypothecated that for bright two-year-old children, elements in the home environment which were of interest to the youngsters and which related to high I.Q. scores would also be of interest in the nursery school environment, specifically, social groups and the components of socialization experiences. Parallel Play appears to serve as an elementary type of group and participation in such was highly correlated with brightness among 2-year-olds.

As to be expected, older (C.A. 3+) and more verbal children actively participated in Cooperative Play. Age, however, was more strongly related to Cooperative Play than was I.Q. In an ongoing study of preschool gifted children (Abroms, 1980) quite similar in design to the Parten study, preliminary data indicate that maturing intellect is related to more complex play patterns.

At this juncture, comment is appropriate regarding the interrelationship between emerging language and emerging peer

relationships for gifted preschoolers. Extrapolation from several studies based upon children not identified as gifted (Rothenberg, 1970; Hartup, Glazer, and Charlesworth, 1967; Gottman, Gonso, and Rasmussen, 1975) indicate that communication skills serve as a central filament in popularity ratings attained by children. However, because a preschool child is "verbal" and has an extensive vocabulary it should not be assumed that these qualities will insure facile communication among a variety of peers. In fact, advanced verbal skills may be a deterrent to successful interactions.

Nursery school observations of a mixed group of gifted and non-gifted children produced the following vignette:

> Heather, a highly verbal gifted child of 2½, was intensely filling cups with sand as Robert and James pursued similar projects in the sandbox. After filling all of the cups, Heather clenched her hand and said with great delight to Robert and James, "Look. I have a handful of sand granules!"

Although not documented by research, it seems as though giftedness "stands out" more during the preschool period. Perhaps the expression of talents at this age is least unadulterated by the ambivalence which society holds for the gifted. Likewise, it seems as though careful selection of appropriate child care facilities is vital at this juncture. The supersensitivity of gifted children quickly provides them with an awareness of "difference." On one hand the notion of learning to "suffer fools gladly" at an early age appears reasonable. On the other hand, a negative image of how one is perceived by one's peers at such an early age can have

lasting, deleterious effects upon the child's developing self concept.

By age three the gifted are clearly social cognizers (Abroms and Gollin, 1980). Social recognition refers to the way the child conceptualizes other people; makes inferences about their covert, inner psychological experiences; and comes to understand the thoughts, emotions, intentions, and viewpoints of others (Shantz, 1975). Three levels of social cognition were assessed in the Abroms et al. (1980) study:

> Visual perspective taking: the ability to infer another's visual perspective.
>
> Conceptual perspective taking: the ability to infer another's thoughts, knowledge, or needs.
>
> Affective perspective taking: the ability to identify another's affective state regardless of one's own emotions.

The three year olds in this study "topped out" on the measure of affective perspective taking, the Borke Interpersonal Perception Test, and showed clear levels of understanding on both visual and conceptual perspective taking. Does superior performance on laboratory tests of these mental activities relate to <u>in situ</u> prosocial behaviors during free play time at nursery school?

In the Abroms et al. (1980) study, based upon upper middle class gifted children, the data suggest that advanced "people perception" is not a significant predictor of the prosocial behaviors of sharing, helping, reacting to another's distress, and physical affection. It appears that there exists a discrepancy between the cognitive abilities to take

the role of another and to actually act upon such cognitions in a manner that will aid another without benefit to oneself in unstructured social situations.

Other studies using children not identified as gifted have found that cognitive understanding alone is not sufficient for behavior to occur (Enright, 1976). Perhaps gifted preschoolers, at a time when the development of their intellectual abilities is racing ahead, are simultaneously developing emotionally at levels similar to their non-gifted peers.

Another interpretation posits that gifted children employ means-end thinking at an earlier age. Thus, they are cognizant of the negative effects which may accrue to them through the execution of prosocial behaviors. Simply stated, sharing a cookie means you get less for yourself!

Needless to say, cultural variables are exceedingly important in viewing data of this sort. In a preschool gifted program which serves a large percentage of Hispanic children in New York, Goldman (1980) reported substantial prosocial behaviors among children in the PIPPI project.

Another study which supports the notion of advanced social cognition among gifted children was conducted by Jordan (1980). Permanence of various kinship roles was explored among 90 white middle class gifted (based on WISC-R vocabulary scores) children ranging in age from 5-7 years. There was an equal number of boys and girls at each age level in the sample. Regardless of sex, by age 5 virtually all of the children were correctly aware of their membership in child and sibling roles

over time spans. They also recognized that opposite-sex kinship pairs (brother - daughter) cannot exist simultaneously.

Thus, two studies conducted specifically on young gifted children give evidence of advanced social cognitive abilities as measured by laboratory tasks. Observational studies conducted on social behaviors of identified gifted children during free play time are lacking. Therefore, observations of social behaviors of nursery school children in general will be summarized. Several studies suggest that girls may be more teacher oriented than boys and less peer oriented than boys (Beller and Turner, 1962; Serbin, O'Leary, Kent, and Tonic, 1973). There is also evidence that peer relationships ("favorite playmates") remain relatively stable (McCandless and Marshall, 1957); Hartup et al. 1967). Abroms (1979) reported a similar finding among gifted 3 year olds. However, basic variables such as transportation arrangements, previous play experiences, parental friendships, and neighborhood proximity must be considered in relation to these findings.

A longitudinal study by Patterson, Littman, and Bricker (1967) of nursery school children indicates that as children interact more frequently with peers, aggression increases. Similarly, Walters, Pearce, and Dahms (1957) and Hartup (1970) have reported increases in antisocial aggression (temper tantrums, destructiveness, overt physical aggression) between the ages of 2 and 4. There is evidence that a shift from antisocial to more socialized forms (i.e. verbal insults) of aggression takes place in early childhood (Jersild and Markey,

1935; Feshbach, 1969). Extrapolation appears appropriate at this point. One of the salient characteristics of preschool gifted children is advanced vocabulary and advanced verbal facility. Thus, we may hypothecate that gifted children possibly show a form of "socialized aggression" earlier than their non-gifted peers.

In conclusion, data gleaned from research indicate that gifted children age 3-5 exhibit superior skills on measures of social cognitive abilities and in language development. In regard to the relationship between social cognition and prosocial behaviors, progressive play patterns and stability of friendship choices, based on the data available thus far, gifted preschoolers seem to share behavior patterns similar to their non-gifted peers. Thus, the trajectory of social growth among gifted preschoolers represents a combination of both divergence and convergence in relation to White's (1975) "average" developing children.

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